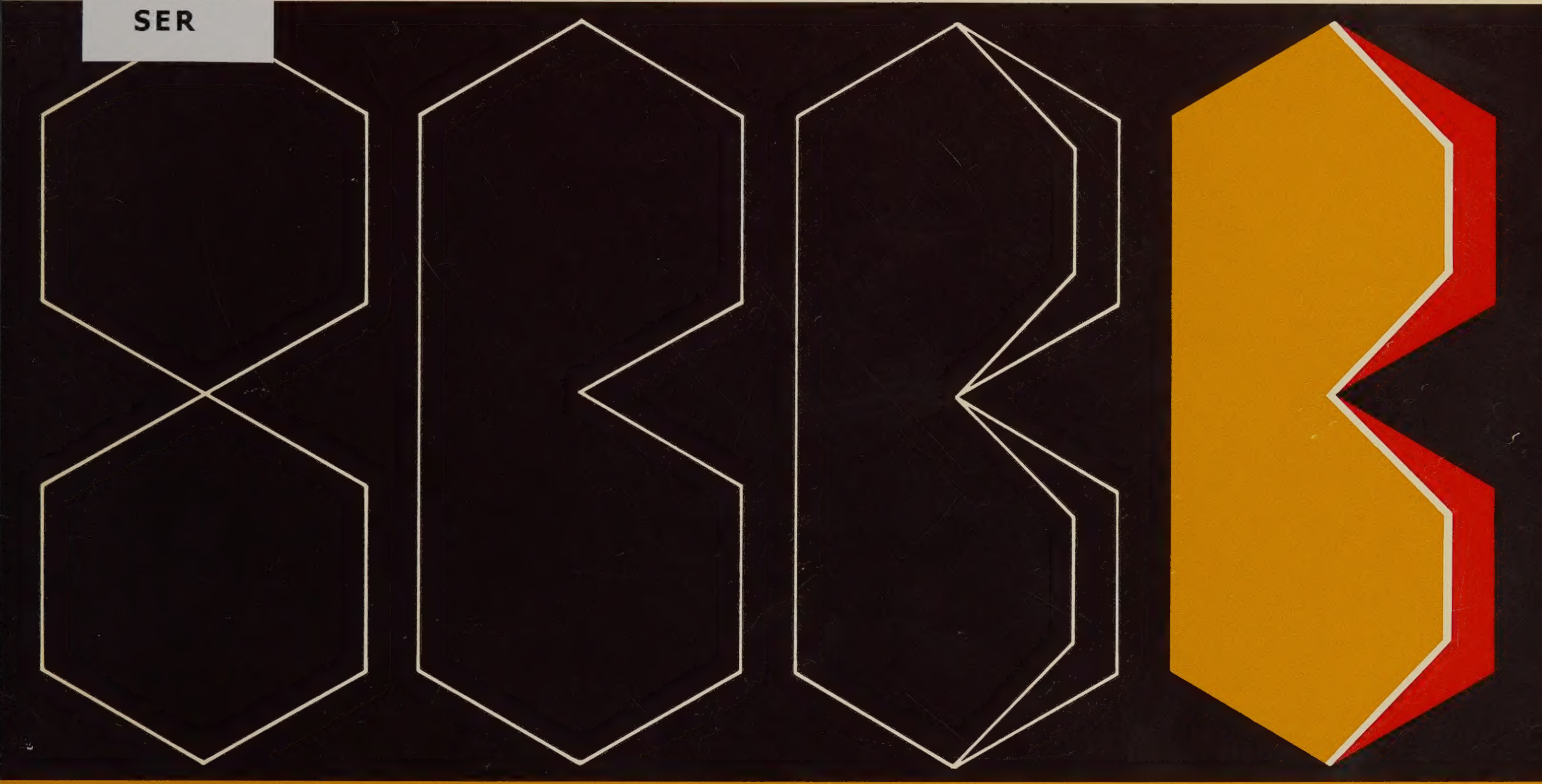
What is Beilstein?

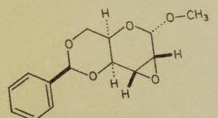


Beilstein Handbook of Organic Chemistry

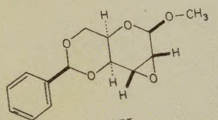
Jesudason, Owen, J.C.S. Perkin I **1974** 2019, 2020.

B. Beim Erwärmen von Methyl-[O^4,O^6-((*S*)-benzyliden)-O^3-(toluol-4-sulfonyl)-α-D-galactopyranosid] (S. 4982) mit Natriummethylat in Methanol (*Sorkin, Reichstein*, Helv. **28** [1945] 1, 8) oder mit Kaliumcarbonat-Lösung in wss. Methanol (*Maehly, Reichstein*, Helv. **30** [1947] 496, 502). Beim Erwärmen einer Lösung von Methyl-[O^4,O^6-((*S*)-benz=yliden)-O^2,O^3-bis-(toluol-4-sulfonyl)-α-D-galactopyranosid] (S. 4988) in Benzol mit Na=triummethylat in Methanol (*So., Re.*).

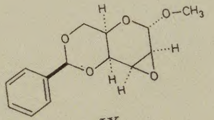
Krystalle (aus Me. + Ae.); F: 178–179° [korr.; Kofler-App.] (*So., Re.*), 174–175° [korr.] (*Ma., Re.*). Im Hochvakuum bei 160° sublimierbar (*So., Re.*). $[\alpha]_D^{14}$: −7,4° [$CHCl_3$; c = 2] (*So., Re.*).



VII



VIII



IX

f) **(4a*R*)-7*c*,8*c*-Epoxy-6*t*-methoxy-2*t*-phenyl-(4a*r*,8a*c*)-hexahydro-pyrano[3,2-*d*]=[1,3]dioxin, Methyl-[*O*⁴,*O*⁶-((*S*)-benzyliden)-2,3-anhydro-β-D-gulopyranosid]** $C_{14}H_{16}O_5$, Formel VIII.

Über die Konfiguration s. *Williams*, Adv. Carbohydrate Chem. **25** [1970] 109, 136; *Jesudason, Owen*, J.C.S. Perkin I **1974** 2019, 2022; *Guthrie, Liebmann*, Carbohydrate Res. **33** [1974] 355, 357.

B. Beim Erwärmen von Methyl-[O^4,O^6-((*S*)-benzyliden)-O^3-(toluol-4-sulfonyl)-β-D-galactopyranosid] (S. 4982) mit Natriummethylat in Methanol (*Sorkin, Reichstein*, Helv. **28** [1945] 1, 15).

Krystalle (aus Ae. + PAe.), F: 146–147° [korr.; Kofler-App.]; $[\alpha]_D^{20}$: −118,5° [$CHCl_3$; c = 1] (*So., Re.*).

g) **(4a*R*)-7*t*,8*t*-Epoxy-6*c*-methoxy-2*t*-phenyl-(4a*r*,8a*c*)-hexahydro-pyrano[3,2-*d*]=[1,3]dioxin, Methyl-[*O*⁴,*O*⁶-((*S*)-benzyliden)-2,3-anhydro-α-D-talopyranosid]** $C_{14}H_{16}O_5$, Formel IX.

Über die Konfiguration s. *Williams*, Adv. Carbohydrate Chem. **25** [1970] 109, 137; *Jesudason, Owen*, J.C.S. Perkin I **1974** 2019, 2020; *Guthrie, Liebmann*, Carbohydrate Res. **33** [1974] 355, 357.

B. Beim Erwärmen von Methyl-[O^4,O^6-((*S*)-benzyliden)-O^2-(toluol-4-sulfonyl)-α-D-gal=actopyranosid] (S. 4980) (*Sorkin, Reichstein*, Helv. **28** [1945] 1, 9; *Reber, Reichstein*, Helv. **28** [1945] 1164, 1170; *Buchanan*, Soc. **1958** 995, 1000) oder von Methyl-[O^3-benzoyl-O^4,O^6-((S)-benzyliden)-O^2-(toluol-4-sulfonyl)-α-D-galactopyranosid] (S. 4986) (*Gyr, Reichstein*, Helv. **28** [1945] 226, 232) mit Natriummethylat in Methanol.

Krystalle (aus $CHCl_3$ + Ae.), F: 241–242° [korr.; Kofler-App.] (*So., Re.*); F: 234° bis 236° (*Bu.*). Bei 160° im Hochvakuum sublimierbar (*So., Re.*). $[\alpha]_D^{20}$: −39,6° [$CHCl_3$; c = 1] (*So., Re.*).

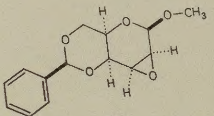
h) **(4a*R*)-7*t*,8*t*-Epoxy-6*t*-methoxy-2*t*-phenyl-(4a*r*,8a*c*)-hexahydro-pyrano[3,2-*d*]=[1,3]dioxin, Methyl-[*O*⁴,*O*⁶-((*S*)-benzyliden)-2,3-anhydro-β-D-talopyranosid]** $C_{14}H_{16}O_5$, Formel X.

Über die Konfiguration s. *Williams*, Adv. Carbohydrate Chem. **25** [1970] 109, 137; *Jesudason, Owen*, J.C.S. Perkin I **1974** 2019, 2022; *Guthrie, Liebmann*, Carbohydrate Res. **33** [1974] 355, 357.

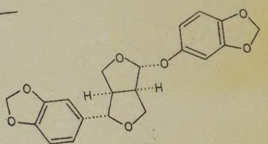
B. Beim Behandeln von Methyl-[2,3-anhydro-β-D-talopyranosid] mit Benzaldehyd und Zinkchlorid (*Wiggins*, Soc. **1944** 522, 524). Beim Behandeln einer Lösung von Methyl-[O^4,O^6-((*S*)-benzyliden)-O^2-(toluol-4-sulfonyl)-β-D-galactopyranosid] (S. 4981) in Chloroform mit Natriummethylat in Methanol (*Wi.*). Neben anderen Verbindungen beim Erwärmen einer Lösung von Methyl-[O^4,O^6-((*S*)-benzyliden)-O^2,O^3-bis-(toluol-4-sulfonyl)-β-D-galacto=pyranosid] (S. 4988) in Benzol mit Natriummethylat in Methanol (*Sorkin, Reichstein*, Helv. **28** [1945] 1, 14; s. a. *Wi.*). Beim Erwärmen von Methyl-[O^3-äthoxycarbonyl-O^4,O^6-((*S*)-benzyliden)-O^2-(toluol-4-sulfonyl)-β-D-galactopyranosid] (S. 4987) mit Natrium=

methylat in Methanol oder mit Kaliumcarbonat in wss. Methanol (*Reber, Reichstein*, Helv. **28** [1945] 1164, 1173).

Krystalle; F: 248–249° [korr.; Kofler-App.; aus $CHCl_3$ + Me.] (*So., Re.*), 242° [aus $CHCl_3$ + PAe.] (*Wi.*). $[\alpha]_D^{19}$: −138,4° [$CHCl_3$; c = 0,6] (*Wi.*); $[\alpha]_D^{17}$: −142,5° [Py.; c = 0,4] (*So., Re.*).



X



XI

(3a*R*)-1*c*-Benzo[1,3]dioxol-5-yl-4*c*-benzo[1,3]dioxol-5-yloxy-(3a*r*,6a*c*)-tetrahydro-furo=[3,4-*c*]furan, Sesamolin $C_{20}H_{18}O_7$, Formel XI.

Konstitution: *Beroza*, Am. Soc. **77** [1955] 3332. Konfiguration: *Haslam*, Soc. [C] **1970** 2332. Zusammenfassende Darstellung: *Budowski*, J. Am. Oil Chemists Soc. **41** [1964] 280.

Isolierung aus Sesam-Öl: *Beroza*, Anal. Chem. **26** [1954] 1173, 1175; *Haslam, Haworth*, Soc. **1955** 827; *Carnmalm et al.*, Acta chem. scand. **9** [1955] 1111, 1116.

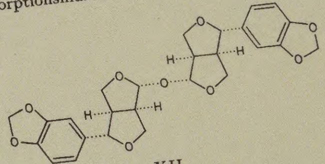
Krystalle; F: 94–94,5° [aus Me.] (*Ca. et al.*), 94° [aus $CHCl_3$ + 2,2,4-Trimethylpentan] (*Be.*, Anal. Chem. **26** 1175), 93–94° [aus A.] (*Has., Haw.*). $[\alpha]_D^{20}$: +212° [$CHCl_3$; c = 1] (*Ca. et al.*).

Bis-[(3a*R*)-4*c*-benzo[1,3]dioxol-5-yl-(3a*r*,6a*c*)-tetrahydro-furo[3,4-*c*]furan-1*c*-yl]-äther, Disaminyläther $C_{26}H_{26}O_9$, Formel XII.

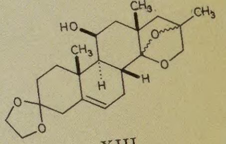
Konfiguration: *Haslam*, Soc. [C] **1970** 2332.

B. Beim Behandeln einer Lösung von Sesamolin (s. o.) in Essigsäure mit Brom oder mit konz. wss. Salzsäure (*Haslam, Haworth*, Soc. **1955** 827, 831).

Krystalle (aus A.), F: 191–192°; $[\alpha]_D$: +143° [$CHCl_3$; c = 2] (*Has., Haw.*). UV-Absorptionsmaxima (A.): 235,5 nm und 286,5 nm (*Has., Haw.*).



XII



XIII

Hydroxy-Verbindungen $C_{22}H_{32}O_5$

***rac*-3,3-Äthandiyldioxy-14,17ξ-epoxy-17ξ-methyl-15-oxa-*D*-homo-14ξ-androst-5-en-11β-ol, *rac*-(14Ξ,16Ξ)-3,3-Äthandiyldioxy-14,15;14,16-diepoxy-16-methyl-14,15-seco-androst-5-en-11β-ol** $C_{22}H_{32}O_5$, Formel XIII + Spiegelbild.

B. Beim Behandeln einer Lösung von *rac*-3,3-Äthandiyldioxy-11β-hydroxy-16-methy 14,15-seco-androsta-5,15-dien-14-on in Benzol und Tetrahydrofuran mit Osmium(VII oxid und Erwärmen einer Lösung des Reaktionsprodukts in Äthanol mit wss. Natriu sulfit-Lösung (*Sarett et al.*, Am. Soc. **75** [1953] 2112, 2114).

Krystalle (aus A.); F: 207–208° [Kofler-App.].

Hydroxy-Verbindungen $C_{23}H_{34}O_5$

3,3;17,17-Bis-äthandiyldimercapto-androst-4-en-11β-ol $C_{23}H_{34}OS_4$, Formel I.

B. Neben 3,3-Äthandiyldimercapto-11β-hydroxy-androst-4-en-17-on (Hauptprod

What is Beilstein?

BEILSTEIN is the encyclopedia of chemical compounds containing the element carbon in their molecule. The work takes its name from Friedrich Konrad Beilstein who published the first edition in 1881/1883.

Today it is the organic chemist's standard work of reference, in daily use throughout the world. Without this library, now consisting of more than 240 volumes, chemical research would be deprived of one of its most valuable assets and would certainly become more costly and repetitive.

At the present day it is estimated that more than five million carbon compounds are known. For each compound described in BEILSTEIN the following data are recorded:

natural occurrence and isolation,

preparation and purification on research and industrial scale,

physical properties,

chemical behaviour and reactions,

identification by derivatisation and analytical procedures,

special handling techniques where necessary.

Each statement is precisely referenced.

Without the BEILSTEIN Handbook, organic chemical research in many fields would involve considerably more tedium and inconvenience. BEILSTEIN is without question one of the organic chemists most essential research tools.

What is the purpose of Beilstein?

The purpose of BEILSTEIN is to provide the scientist interested in carbon compounds with an up-to-date, reliable and comprehensive survey of factual information and established results.

This extensive collection of concrete facts enables the chemist, physicist, biologist or technologist to prepare or identify a particular compound without repeating previous research, thus saving time, effort and money.

The critical assessment and coherent ordering of factual information in BEILSTEIN has made an important contribution to modern organic chemical practice, on the one hand helping the scientist avoid pitfalls, and on the other offering insight and stimulation for further research.

What is the value and significance of Beilstein?

The outstanding feature of the BEILSTEIN Handbook is that it provides a critical review of all material on carbon compounds published in journals, patents, monographs and important theses. *BEILSTEIN is the only comprehensive work of its kind in the world, not only documenting the literature of organic chemistry but also evaluating and checking the published data.* Insignificant, misleading or clearly erroneous results are discarded during the elaborate and thorough editing carried out at the BEILSTEIN Institute in Frankfurt. More than 70 percent of the "raw" data from the primary literature is rejected, either because the material is not new and is contained in previous volumes of the BEILSTEIN Handbook, or because there is nothing original about the reactions discussed. This clearly represents an enormous saving in time for the user of the Handbook.

BEILSTEIN offers excellent value for money. It is produced by a staff of highly qualified scientific specialists.

The BEILSTEIN Institute is a non profit-making organization and overheads are kept to a minimum.


Contents of
Beilstein – Handbook
of Organic Chemistry
Acyclic Compounds
Isocyclic Compounds
Heterocyclic Compounds
1 kg = 12.65
22

How is Beilstein organized?

The BEILSTEIN Handbook is divided into *series* (Basic Series and Supplementary Series) and ***volumes,*** covering the periods listed in the following table:

The volumes of Supplementary Series III and IV covering the heterocyclic compounds (vols. 17–27) are combined in a joint issue (Supplementary Series III/IV).

To keep pace with the rapid growth of the chemical literature BEILSTEIN is subjected to a continuous process of revision and extension to include new results, these frequently being of considerably later date than that indicated by the nominal closing date of the Series concerned.

Series	Number of part volumes	Period of literature completely covered	Colour-code on spine
Basic Series	27	up to 1909	green
Supplementary Series I	17	1910–1919	red
Supplementary Series II	31	1920–1929	white
Supplementary Series III	62	1930–1949	blue
Supplementary Series III/IV (in progress)	66*	1930–1959	blue/black
Supplementary Series IV (in progress)	38*	1950–1959	black
Supplementary Series V (forthcoming)		1960–1979	

* December 1981

Preparations have now been completed for Supplementary Series V, the first volumes of which are to be published shortly. This will cover the literature from 1960 through to 1979.

The Handbook has been published in unbroken tradition since 1918 by Springer-Verlag.

What is Beilstein's systematic arrange

Order and the logical arrangement of facts are basic to all sciences.
In much the same way as Mendeleev's periodic classification of the elements imposed order on the whole field of chemistry, the BEILSTEIN System, devised by P. Jacobson and B. Prager in 1907, brought a logical and systematic ordering of the carbon compounds.

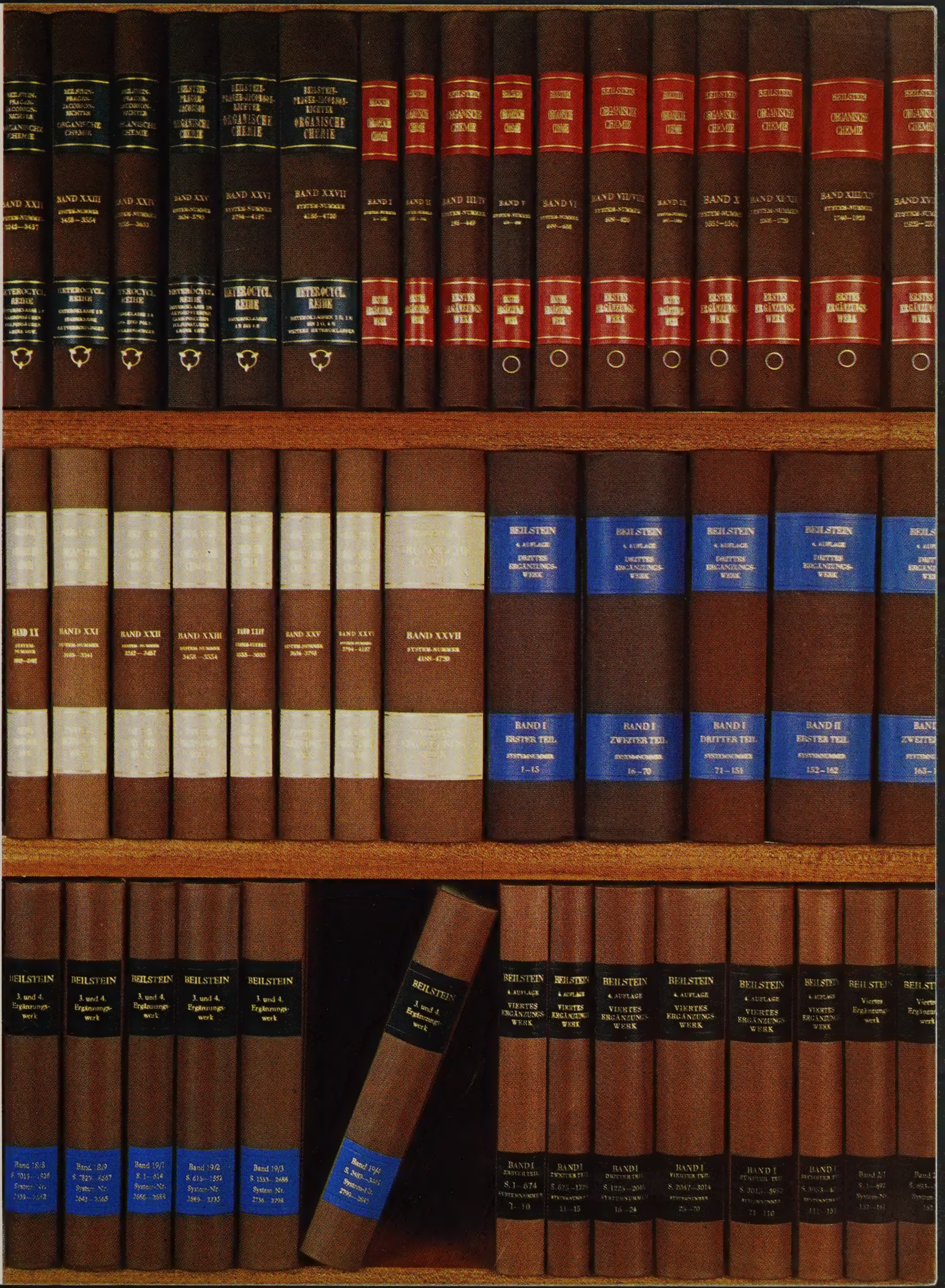
The system is explained in detail with numerous examples on the first 46 pages of volume 1 of the Basic Series. A shortened version of these rules is outlined in a new guide, "How to use Beilstein", which provides concise instructions on how to extract the maximum amount of information from the Handbook with the minimum of effort. For those who are interested the guide is available free of charge from the publishers.

There are three main divisions in the BEILSTEIN System: acyclic, isocyclic and heterocyclic carbon compounds. Each of these

ment?

is subdivided into classes according to the functional features of the individual compounds.

The table included on the next two pages of this brochure gives a brief outline of the BEILSTEIN System.



The Beilstein System

Identically numbered volumes of the Basic Series (Fourth Edition) and a Supplementary Series contain the same classes of compounds (system numbers). Where necessary, the nominal volumes of a Supplementary Series have been subdivided into several parts.

Main Functional Group		None	-OH	=O	$\begin{smallmatrix} /\!\!/\mathrm{O} \\ \backslash\mathrm{OH} \end{smallmatrix}$	$-XOOH, -XO_2OH$ (X=S,Se,Te)	$-NH_2$	-NHOH etc.	$-PH_2$ etc.
Functional Class		**Compounds without Functional Groups** (Functionless Compounds)	**Hydroxy Compounds**	**Oxo Compounds** (Simple Oxo Compounds, Hydroxy-Oxo Compounds)	**(Carboxylic) Acids** (Simple Acids, Hydroxy Acids, Oxo Acids, Hydroxy-Oxo Acids)	**Chalcogen Oxoacids** (Sulfinic Acids, Sulfinic Acids with additional Oxygen Functions, Sulfonic Acids, Sulfonic Acids with additional preceding Functional Groups, Selenic Acids, etc.–)	**Amines** (Simple Amines, Hydroxy Amines, Oxo Amines, Hydroxy-Oxo Amines, Amino Acids, Amino Acids with additional Hydroxy Groups, or/and Oxo Groups, Aminosulfinic Acids, etc.–)	**Compounds with further Nitrogen Functional Groups**	**Compounds with other Functional Groups**
Acyclic Compounds	Vol. No.	1	1	1	2, 3	4	4	4	4
	System No.	1-15	16-70	71-151	152-322	323-331	332-379	380-400	401-449
	Examples	Methane, Ethylene, Acetylene	Ethanol, Glycerol, Mannitol	Formaldehyde, Glucose	Acetic acid, Lactic acid	Methanesulfinic acid, Sulfoacetic acid	Ethylenediamine, Glutamic acid	Methylhydrazine, Azomethane	Dimethylphosphinic acid, Tetraethyl lead
Isocyclic Compounds	Vol. No.	5	6	7, 8	9, 10	11	12, 13, 14	15, 16	16
	System No.	450-498	499-608	609-890	891-1504	1505-1591	1592-1928	1929-2251	2252-2358
	Examples	Cyclohexane, Phenanthrene	Cholesterol, Phloroglucinol	Benzaldehyde, Anthraquinone	Cinnamic acid, Mandelic acid	Naphthalenedisulfonic acid, Benzeneselenonic acid	Aniline, Phenylalanine	*N*-Phenylhydroxylamine, Benzenediazonium chloride	Triphenylarsine, Diphenyl magnesium
Compounds with 1 Chalcogen Ring Atom	Vol. No.	17	17	17, 18	18	18	18	18	18
	System No.	2359-2377	2378-2456	2457-2569	2570-2626	2627-2638	2639-2650	2651-2664	2665
	Examples	Ethylene oxide	Xanthydrol	Furfural, Maleic anhydride	Saccharic acid lactone	Thiophenesulfinic acid	Amino-1-benzopyran	Xanthenylhydrazine	Triphenyl thienyl tin
Compounds with 2 Chalcogen Ring Atoms	Vol. No.	19	19	19	19	19	19	19	19
	System No.	2666-2688	2689-2735	2736-2843	2844-2904	2905-2906	2907-2939	2940-2949	2950
	Examples	Dioxane, Thianthrene	*O*, *O'*-Benzylideneglycerol	Piperonal	Glycidic acid	1,3-Benzodioxinesulfonic acid	Aminoisosafrole	Bis(phenyltriazeno)thianthrene	(Methylenedioxy)phenylarsonic acid
⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Compounds with 1 Nitrogen Ring Atom	Vol. No.	20	21	21	22	22	22	22	22
	System No.	3032-3102	3103-3176	3177-3241	3242-3375	3376-3387	3388-3445	3446-3456	3457
	Examples	Pyridine	Atropine	Isatine	Proline	Pyridinesulfonic acid	Tryptamine	Azoxycarbazole	Dipyridyl mercury
Compounds with 2 Nitrogen Ring Atoms	Vol. No.	23	23	24, 25	25	25	25	25	25
	System No.	3458-3501	3502-3554	3555-3638	3639-3705	3706-3707	3708-3781	3782-3792	3793
	Examples	Pyrazoline	Cinchonine	Indigo	Dialuric acid	Phenazinesulfonic acid	Histidine	Phenylazoimidazole	Pyrazolylphosphonic acid
Compounds with 3 Nitrogen Ring Atoms	Vol. No.	26	26	26	26	26	26	26	26
	System No.	3794-3824	3825-3868	3869-3894	3895-3946	3947	3948-3996	3997-4007	4008
	Examples	Triazine	Triquinolylmethanol	Cyanuric acid	Triazolecarboxylic acid	Naphthotriazolesulfonic acid	Aminobenzotriazole	Benzotriazolediazonium chloride	Benzotriazolylarsonic acid
⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Compounds with 1 Chalcogen Ring Atom and 1 Nitrogen Ring Atom	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4188-4214	4215-4268	4269-4300	4301-4331	4332-4333	4334-4390	4391-4393	4394
	Examples	Morpholine	Morphine	Oxazolidindione	Oxazolecarboxylic acid	Aminonaphthalenedisulfonic acid lactam	Aminophenoxazine	(Hydroxyamino)isoxazolidine	(Hydroxomercurio)phenothiazine
Compounds with 2 Chalcogen Ring Atoms and 1 Nitrogen Ring Atom	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4395-4417	4418-4442	4443-4447	4448-4454	4455-4456	4457-4467	4468-4470	4471
	Examples	Dioxazolidine	Berberine	Dithiazolinone	(Methylenedioxy)isoquinolinecarboxylic acid	Benzodioxazolesulfonic acid	Aminobenzoxathiazole	(Phenylazo)dioxoloquinoline	Dioxazolylsilan
⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Compounds with 1 Chalcogen Ring Atom and 2 Nitrogen Ring Atoms	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4484-4502	4503-4540	4541-4580	4581-4603	4604-4605	4606-4612	4613-4615	4616
	Examples	Benzofurazane	Hydroxybenzothiadiazole	Strychnine	Isostrychnic acid	Benzoxadiazolesulfonic acid	Aminostrychnine	(Phenylazo)thiadiazole	Pyridooxazolylarsonic acid
Compounds with 2 Chalcogen Ring Atoms and 2 Nitrogen Ring Atoms	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4617-4635	4636-4638	4639-4642	4643-4648	4649	4650-4653	4654-4656	4657
	Examples	Benzodioxadiazine	Oxyacanthine	Ethylpiperonylbarbituric acid	(Methylenedioxyphenyl)pyrazolecarboxylic acid	Benzobisthiazolesulfonic acid	Aminobenzobisthiazole	Hydrazinobenzobisoxazole	Difurylquinoxalinylarsonic acid
⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Compounds with 1 Chalcogen Ring Atom and 3 Nitrogen Ring Atoms	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4670-4671	4672	4673	4674	4675	4676	4677	4677
	Examples	Imidazobenzoxazine	Bis(hydroxyindolyl)isoxazole	Imidazolyloxazolinon	Oxatriazepinecarboxylic acid	Dipyrrolophenoxazinesulfonic acid	Aminoquinoxalinophenoxazine	Azoquinoxalinophenoxazine	Oxatriazaacenaphthenylarsonic acid
⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Further Heterocyclic Compounds	Vol. No.	27	27	27	27	27	27	27	27
	System No.	4720	4720	4720	4720	4720	4720	4720	4720

How is Beilstein produced?

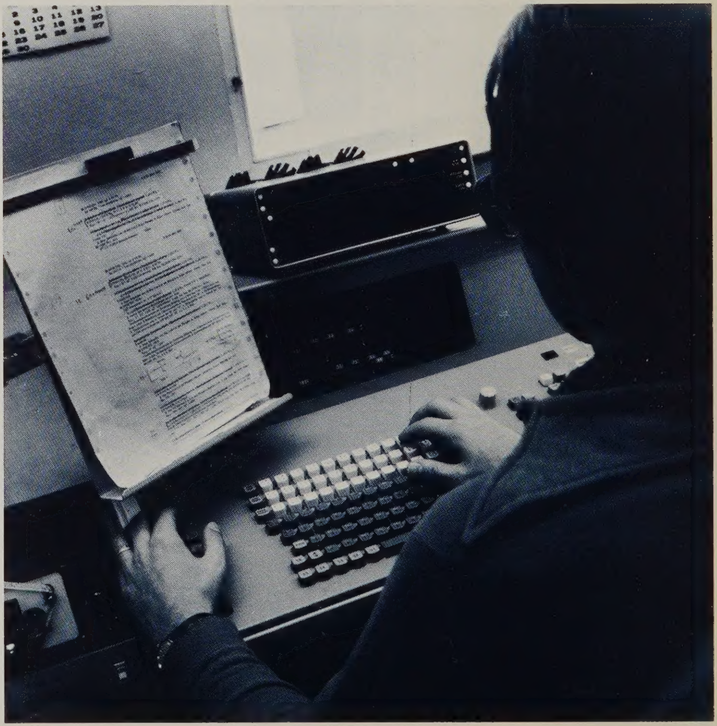
The work of the BEILSTEIN Institute is essentially that of an enormous "data-refinery", taking in "raw" data from the world's chemical literature, sifting, sorting, and processing it, and presenting the world in return with a compact, streamlined and well ordered array of hard facts in the form of the BEILSTEIN Handbook, classified according to the internationally known BEILSTEIN System.

At the Institute in Frankfurt over a hundred highly qualified scientists carefully study all the primary literature, prepare and classify millions of literature abstracts, critically assess all new information and finally edit this material into book form. A wide experience of languages and a thorough understanding of modern organic chemistry are essential for this work. The very high standard of the BEILSTEIN Handbook is best shown by the fact that errors are extremely rare and should one occur it is usually a member of the Institute who is first to detect it.

To maintain the high reputation for critical literature assessment and accuracy enjoyed by BEILSTEIN since its inception, has always demanded a thorough familiarity with current chemical thinking and practice, supported by repeated checking, cross-referencing and renewed appraisal of the original material. These standards are now higher than ever, and there has been no break in this tradition in spite of two world wars.

Today, the printed proofs are subjected to revision and if necessary correction, up to three times prior to publication, a devotion to accuracy to be met with in few, if any, other published works. The enormity of this task, involving the use of several million raw data cards currently stored at the Institute, is further evidence of the dedication of all those engaged in compiling BEILSTEIN.

Computerized correction of printed Beilstein proofs



How up-to-date is Beilstein?

The work carried out at the BEILSTEIN Institute is as up-to-date as the chemical literature itself. Critical assessment of any data requires constant reference to the latest results, and although a published volume may deal with the literature of a previous decade, references to work of later date will be included if a correction or additional information is considered essential by the editors.

This fact is not generally appreciated. Because the Handbook is subdivided into decades, it is often believed to cover only the literature of that particular period. In fact, however, this is not the case, and ***the inclusion of references to later results serves to emphasize the up-to-dateness of the work as a whole.***

By constant critical study of the latest literature, the chemists engaged at the Institute are kept in close touch with every aspect of current research on specific carbon compounds. They live in today's world and are at pains to ensure that all data published are those accepted as correct here and now.

How international is Beilstein?

Hundreds of important chemical journals reach the BEILSTEIN Institute from all over the world and in all conceivable languages. In return, the BEILSTEIN Handbook is found in all corners of the world where chemical research is carried out. Ready access to BEILSTEIN is essential if efficiency and a high standard of research results are to be achieved.

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That this is universally recognized is best shown by the worldwide distribution of the Handbook.

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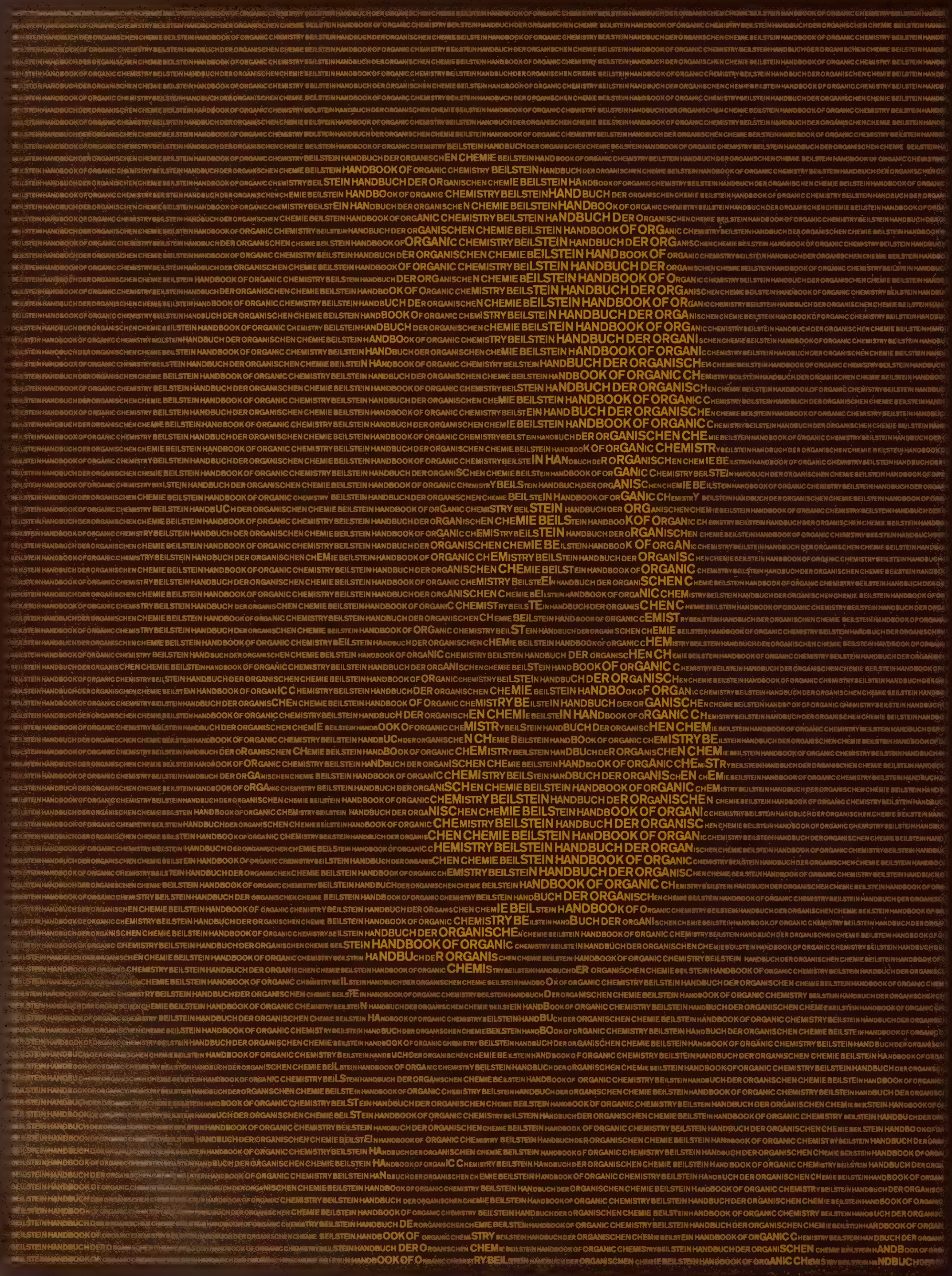
BEILSTEIN HANDBUCH DER ORGANISCHEN CHEMIE BEILSTEIN HANDBOOK OF ORGANIC CHEMISTRY

F Beilstein

What is Beilstein's history?

"In this work I have tried to collect, as clearly as possible, all fully analysed organic chemical compounds", Friedrich Konrad Beilstein wrote as the opening sentence to his preface of the first edition. For over 100 years now, this has remained the guiding aim and object of all engaged in this ambitious project.

F. K. Beilstein was born in St. Petersburg, now Leningrad, in 1838 of German parents. He studied chemistry in Heidelberg and Munich, and worked under Wöhler in Göttingen, where he became Professor of Organic Chemistry at the age of 27. A year later, in 1866, he was recalled to St. Petersburg to succeed Mendeleev. Here he planned the publication of a Handbook of Organic Chemistry and dedicated himself to this work until his death in 1906.

The first edition of his Handbook was a tremendous success. It appeared in 1881/1883 after fifteen years of hard work and consisted of two volumes covering 15,000 carbon compounds. The entire edition was quickly sold out, so that a second, expanded edition of three volumes was called for and appeared between 1885 and 1889.

Even at that time it was no mean task to evaluate the whole of the literature of organic chemistry, yet F. K. Beilstein was able to compile the Third Edition practically single-handed. This edition ran to four volumes.

Beilstein himself recognized that the work of continuing the Handbook could not be carried on by a single person. At the beginning of the century it fell first to P. Jacobson, then secretary of the German Chemical Society, and B. Prager to continue in Berlin what Beilstein had begun in Russia. They started the Fourth Edition (Basic Series). In 1933, F. Richter took over the editorship, followed by Hans-G. Boit, who was publisher of the Handbook and director of the BEILSTEIN Institute in Frankfurt/Main from 1961 until March 31st, 1978. From April 1st, 1978 Reiner Luckenbach has been director of the Institute.

The BEILSTEIN Institute for the Literature of Organic Chemistry, to give it its full title, was called into existence as a foundation in 1951, and six years later, the Carl Bosch House was given over to the Institute by the City of Frankfurt.

This Institute, together with the publisher, Springer-Verlag Berlin · Heidelberg · New York, render a unique service to the world community of chemists in producing the BEILSTEIN Handbook of Organic Chemistry.

For further information on the BEILSTEIN Handbook the following material is available free of charge from your bookseller or from the publishers:

"How to use Beilstein", an informative guide with concisely formulated user-instructions, obtainable in English, German or Japanese.

"The Short Cut" (Poster showing a schematic procedure for locating compounds in the BEILSTEIN Handbook).

"BEILSTEIN Dictionary" (German/English).

"BEILSTEIN Reference Chart" (see picture on page 5). Size of the poster 140 x 100 cm. (Also obtainable in brochure form.)

"BEILSTEIN Outline", containing details of all currently available volumes of the Handbook.

Typographical portrait of Friedrich Konrad Beilstein (see picture on page 12). Size of the poster 51 x 81,5 cm.

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